

FAIRCHILD RECORDING EQUIPMENT COMPANY  
MODEL 225 MICRADJUST DIAMOND STYLUS CARTRIDGES

INSTALLATION AND OPERATION

The Fairchild Model 225 Cartridge is a transducer of the moving coil type manufactured in three versions:

| Model | Type          | Tip Radius | Color Code |
|-------|---------------|------------|------------|
| 225A  | Microgroove   | .001"      | Red        |
| 225B  | Standard 78's | .0025"     | Black      |

MECHANICAL INSTALLATION

225 Series Cartridges have been designed for standard RETMA mounting dimensions and therefore may be readily installed in all record changers and professional transcription arms. These cartridges can be used with all turntables and changers since they have a magnetic structure which virtually eliminates turntable attraction.

In general, best results will probably be obtained with a stylus force of about 6 grams. A reliable gram scale should be used and the measurement taken with the arm in actual playing position. The most accurate value will be an average of the two readings obtained while (1) slowly moving arm up and (2) slowly moving it down.

RECOMMENDED STYLUS FORCE

| Model | Vertical Force |
|-------|----------------|
| 225A  | 4 to 8 grams   |
| 225B  | 12 to 18 grams |

Optimum force is determined by type of arm, quality and condition of record and various other factors.

ELECTRICAL INSTALLATION

Most modern preamplifiers will operate satisfactorily with the 225 Series Cartridge plugged directly into the phonograph input. Any value of load resistor greater than 5,000 ohms is satisfactory since the cartridge has a very low impedance (200 ohms). If your preamplifier has two magnetic pickup inputs, use the one marked "low input" with the 225 Cartridge. If your preamplifier or control unit has a switch or potentiometer for setting the cartridge load or preamplifier output, the position reading nearest 50K, or 5 millivolts (5mv) should be employed.

For professional purposes, a 200/250 ohm to line or grid transformer may be used. For home use, our Model 235 Transformer is recommended where an output voltage in the 25 millivolt range is desired. (For example: Some preamplifier-equalizer units employ loudness controls which operate more satisfactorily with a higher input voltage.) The optimum load resistance when the 235 Transformer is used is 47,000 ohms.

Because of its design and low impedance, this cartridge is relatively insensitive to AC fields and in the majority of installations, no trouble with hum pickup will be experienced. An unshielded or improperly grounded arm may pick up hum. It will be found that such hum can be reduced by grounding the arm (when a separate transcription arm is used) to the turntable chassis or frame. This ground wire should be carried to the PREAMPLIFIER INPUT PLUG by means of an insulated wire. It should not be connected to the signal ground (or shield) at the pickup end, or a hum loop may be formed.

Another important advantage of the low impedance of the FAIRCHILD Moving Coil Cartridge is that it permits the use of long cable lengths between the pickup and the preamplifier (up to 50 or more feet of any shielded cable) with no loss of high frequencies or volume.

225-1M-575

CARE AND MAINTENANCE

These cartridges are of sturdy construction and should provide excellent and highly reliable service. The life of a diamond stylus is normally a year or more in home use. It is well to have the diamond inspected by a competent technician, using a suitable microscope, after each 500 hours of wear. When the stylus begins to show wear, the cartridge should be returned to the dealer from whom it was purchased or sent direct to

SERVICE DEPARTMENT

FAIRCHILD RECORDING EQUIPMENT COMPANY  
10-40 45th AVENUE  
LONG ISLAND CITY, NEW YORK

DO NOT ATTEMPT REPAIRS - IF THE SEAL HAS BEEN BROKEN BY REMOVING COVER, THE FACTORY WARRANTY WILL BE VOID. We urge that the seal not be broken even after the 90-day standard warranty has elapsed. Fairchild makes every effort to protect the investment of its customers by replacing any cartridge that is defective in materials or workmanship, regardless of age, but any such repair beyond the standard 90-day warranty period must be entirely at the discretion of the Fairchild Recording Equipment Company in all cases. In no case will a cartridge be repaired under warranty if the cover seal is broken.

DO NOT MAKE A SOLDERED CONNECTION TO PRONGS OF THE CARTRIDGE. ALWAYS SOLDER TO THE CLIPS WHICH IN TURN SLIP ONTO THE PRONGS. IF THE CARTRIDGE IS DAMAGED BY SOLDERING TO THE PINS THE WARRANTY IS VOID.

Should repairs be necessary, services and charges are:

1. Overhaul of Cartridge including complete examination, repair, test but NOT including new diamond stylus . . . . . \$12.00
2. Complete overhaul as No. 1 but INCLUDING new diamond stylus and all new moving parts . . . . . 22.50

Where only minor adjustments are required, little or no charge is made in line with our liberal warranty policy. When the unit is received in our Service Department, it is inspected thoroughly and a repair authorization form is mailed to you stating the cost, and requesting authorization to proceed with recommended repair. When returning the cartridge, wrap it in tissue paper, pack it in a small box or its plastic case, then place that container in a shipping box at least 2 inches larger in each direction. Surround the inner box with crumpled newspaper or other protective packing. Send the cartridge by insured first class mail. Enclose a brief note describing the reason for the return.

SPECIFICATIONS

Nominal Impedance . . . . . 200 ohms  
Inductance . . . . . 2 mh  
DC Resistance . . . . . 195 ohms  
Output . . . . . Approximately 5 millivolts for recorded velocity of 2.5 inches per second.  
Frequency Response . . . . .  $\pm 2$  db - 20 to 20,000 cycles  
Weight . . . . . 12 grams

WARRANTY REGISTRATION • MAIL IMMEDIATELY TO 225-5  
Fairchild Recording Equipment Company  
10-40 45th Ave., Long Island City, N.Y.

Your Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_  
Model No. 225 Date of Purchase \_\_\_\_\_  
Dealers's Name \_\_\_\_\_ City \_\_\_\_\_